February 27, 2001

MIS IMPLEMENTATION

Mark Yearwood, (myearwood@chcl.tachc.org), Assistant Director of Information Technology for the City of Lubbock, Texas, hosted a technical assistance call for CAP grantees to discuss management information system (MIS) issues on February 27, 2001.

Overview of the Computing Environment

Mr. Yearwood explained that, when investigating the development of an MIS, it is important for health care providers to understand the system that is currently in use and make sure that it is adequate for the targeted implementation. He suggests, as a first step, that an inventory be taken of the hardware and software that supports the current system.

Many new systems currently being developed are based on Microsoft NT, although Unix-based systems continue to be used when a more powerful operating system is required. Most applications are databases and will therefore require a database manager to update and maintain them. Currently, the two prominent database applications are Microsoft SQL and Oracle. Microsoft claims that its SQL servers require only moderate IT experience for their administration and will run only on Window NT or Window 2000. Oracle runs on all systems, seems to be the most flexible application, and therefore is currently the most widely used database system.

Requirements Definition

The targeted user department must define the requirements for the system. For example, users may specify a central place to input and retrieve data, generate Federal and State mandated reports, analyze demographics for each site, etc. Consultants familiar with the health care arena are often helpful for developing a complete list of requirements. The resulting requirements definition then becomes the user's request for proposal. The challenge at this point becomes matching the stated requirements with what vendors are able to provide.

Buy vs. Build

A system should be tailor-made only if adequate IT staff and development personnel exist to subsequently manage it. IT staff must be dedicated in order to provide the required development, maintenance, and ongoing enhancements of a proprietary system. The process of developing a system can take up to two years. Therefore, although the concept of developing a system designed to meet an organization's specific needs is often attractive initially, it must be weighed carefully against the additional resources required to develop and maintain it.

Contract Negotiations

Clients should never accept the vendor's standard contract. Instead, it is important to review the standard contract and amend it as necessary. Ideally, the RFP requirements should be incorporated into the contract in order to ensure vendor commitment to satisfying the listed requirements. Penalties for non-performance should also be discussed in the contract language. The final 10% of a contract is typically the most difficult to enforce, since vendors may already have been paid by that time. Developing payment milestones can often be helpful and should be considered. For example, organizations may negotiate to pay 30% upon the installation of the product, 30% on completion of trainings and modifications, 30% on interfaces, and 10% upon project sign-off. Ongoing maintenance should be also included in the contract to ensure that maintenance costs not rise over 5-10% per year.

Implementation Services

Implementation services, which typically include installation, training, data conversion, modifications, and user interface task, should be contracted as well. Ensuring that these services are covered in the contract is especially important when modifications to the package are required. Installation of the basic software package should also include basic configuration. Training should be provided for a core group of staff that can then train the rest of the staff as appropriate.

When utilizing data from an existing system, it is important to first determine how much data conversion will be required and which data will be transferred. Data can be retrieved from the existing system by the organization staff in some cases, but it is wise to consider whether vendors are willing to assist in the conversion to ensure a seamless transition. The typical cost for data conversion is $125-175 per hour. Work with the selected vendor to determine accurate mapping procedures. Once the data conversion and mapping are completed, it may be possible to complete the process using an appropriate combination of the new and previous vendors.

Initial and on-going modifications also will be added to the cost of the project, so it is important to consider what level of modification may be required upfront. Often a simple change in business practice to accommodate the software package can accomplish the same task as the proposed modification at little or no additional cost. Another option to consider is having the application development staff write a small system separate from the application package to accomplish certain tasks. Different systems with separate data can often be interfaced, such as automatic generation of email to an accounting department on a different system.

Cooperative Data Sharing Agreements

It is important to remember that organizations may have similar missions, but their systems requirements may differ considerably. Organizational responsibility for specific data must be clearly explained up front and, preferably, in writing. MIS vendor agreements should be treated as any contract negotiation would be. All organizations involved need to clearly understand what is expected and what will be provided. Spending enough time in discussion with the software vendor to be sure that shared systems are capable of and amenable to providing shared data is critical. Vendors should ensure that data can be partitioned and split as appropriate to work.

Implementation requires careful analysis of the needs of the organizations involved in sharing systems and of each aspect of the systems themselves to insure optimal functionality and effectiveness.

MIS IMPLEMENTATION CALL PARTICIPANTS:

Name	Organization
Allen Meyer	San Francisco Community Clinic Consortium
Ana O'Connor	Alameda County Medical Center
Audrey Smolkin	HRSA Philadelphia, PA
Bob Reasoner	Houston, TX
Brenda Theus	Memphis CAP
Carolyn Emanuel	
Cheryl Dammons	HRSA
David Liss	NY Presbyterian Hospital
Dennis Williams	NC CAP
Fran Carlson	
Greg Johnson	Denver Health Medical Center
James Burnosky	RWJ: Communities in Charge
Jason Ladmer	KS CAP
Joanne Omi	NY
John Cragin	Boston Medical
Judy Szalapski	MN CAP
Kay Freeman	CareNet Partners: Tallahassee, FL
Laura Coleman	Bi-State Primary Care Coordination
Len Stewart	Lighthouse Health Access Alliance
Linda Potts	Community Health Initiative, Springfield, IL
Lisa Craig	Health Improvement Partnership, Spokane, WA
Lynn Evans-Riester	Inova Health System
JoAnne Jorgenson	Inova Health System
MAC	Management Assistance Corporation
Nick Zucconi	HRSA Denver
Paula Lucey/ Joseph	Milwaukee CAP
Rommel Nobay	Middlesex Hospital, CT
Ruth Woolum	SKYCAP-Hazard
Stacy Kelly	Austin CAP
Tammy Eberly	Tiahoga CAP
Tom Brown	Palmetto Alliance, Columbia, SC
Tom Butts	Birmingham Alabama
Tom Lewis	MD CAP
Synthesis Writers	Synthesis Professional Services

Summary Developed By: Synthesis Professional Services, Inc.